


Designing and Building an LCMC — Blueprint for a High-Performance Organization

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Since the first Life Cycle Management Command (LCMC) was established at Redstone Arsenal, AL, in October 2004, it has become increasingly clear that successful LCMC implementation requires much more than rearranging the boxes on an organization chart and collocating personnel. The LCMC initiative will achieve its desired outcomes only through the application of sound, proven principles of organization design and development, acknowledging the lessons learned from the past and addressing cultural issues. Key desired outcomes are that products get to the Soldier faster, system availability and readiness is improved, the separation between the procurement and sustainment communities is eliminated and life-cycle cost is minimized.

A battery of High Mobility Artillery Rocket Systems fires a volley during a firepower training demonstration. Major streamlining of the entire acquisition management process is improving the LCMC's capacity to enhance the Army's go-to-war weapons systems capabilities. (Photo courtesy of Lockheed Martin.)



So, why, more than a year into implementation, would design issues still be a concern for the LCMC? While many of the “structural” decisions have been made, there remain many unanswered questions about overall organization design and related factors. For example, what impact will culture have on successful implementation of the design — will it create any obstacles or barriers? Organization design is an ongoing, iterative process. As LCMC metrics are gathered and analyzed, adjustments in design will likely become necessary.

Architects and Builders

The leadership team charged with the responsibility for establishing the Aviation and Missile LCMC includes MG James Pillsbury, Commander, Aviation

and Missile LCMC; Dr. Richard Amos, Deputy to the Commanding General; BG Mike Cannon, Program Executive Officer (PEO) Missiles and Space; and Paul Bogosian, PEO Aviation. They have the responsibility to design, build and manage the LCMC — its systems, strategy, structures, processes and culture. To borrow from the construction industry, they are both architects and builders.

As LCMC architects, their foremost objective is to design the LCMC so that it is able to execute its mission and strategies. But equally important, they need to design it so that it creates a supportive culture for employees. Typically, architects pay more attention to “structural” issues like work flow and

how jobs and work units are structured, rather than cultural issues that include leadership behavior, interpersonal relationships, distribution of power and communication. We contend that if one does not pay equal attention to the cultural and people issues, success could be seriously compromised.

Organizational Congruence

One of the sound, proven principles of organization design and development is something called “congruence of organizational elements.” Although it sounds academic, it is a fairly simple concept. Congruence, or “fit,” refers to the state of alignment, consistency or balance of all organizational elements including work, people,

Army acquisition management processes are being rapidly adapted to be more responsive to combatant commanders' changing battlefield requirements. This means the LCMCs must get products to our Soldiers faster and improve the "go-to-war" capability of our weapons systems, such as the Javelin being fired here. (U.S. Army photo.)



technology and information, among others. In everyday terms, it has to do with all the elements fitting together. For example, an organization would want to ensure that its reward system, hiring policies and practices and training systems are all congruent with, and reinforce the behaviors of, the desired culture and support its vision.

There are five key organizational elements that should be aligned with one another to ensure successful LCMC implementation:

- Environment — What are the external and internal demands, pressures and expectations facing the LCMC?
- Vision and Strategy — What will the future organization look like? What are the LCMC's goals, objectives and

values? How will they be achieved?

- Organization Design — What tasks and technologies are required to execute the strategy? What structure, systems, processes and capabilities are required to ensure the tasks can be completed effectively and efficiently?
- Culture and Leadership — What are the shared values, beliefs and cultural norms that drive behavior in the organization? How do leaders inspire followers to take on new challenges? How do leaders model the organization's values?

- Results — What is the organization achieving? What has been or will be accomplished?

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An understanding of each organizational element in the context of supporting Army transformation, and how they impact one another, will help the LCMC architects and builders achieve success. It all starts with changing demands.

Environment — Changing Demands on the Army Acquisition Process

The Army has launched a comprehensive effort to transform itself as a response

to changing operational demands. A primary objective of this transformation is to create a lighter, more rapidly deployable and more tactically agile Army without sacrificing survivability and lethality. The global war on terrorism is a different kind of war with a different kind of enemy — one that is no longer a single political regime, person, religion or ideology.

Changing Demands Require Changing Vision and Strategies

The driving force behind LCMC creation is the changing demands on the Army. While the Cold War's last few decades were characterized by a certain degree of predictability, the nature of the threat is much more complex, varied and unpredictable today. This has led to a need for the Army and, more specifically, Army acquisition management, to adapt and change to be more responsive in getting products to our Soldiers faster and improving the go-to-war capability of our weapons systems.

Changing Strategies Require Changing Organizational Design and Structure

The old axiom “strategy drives structure” is still true today. LCMC architects must ensure that there is a good fit between strategy and organization design. An effective life-cycle management initiative — one that will support integrated weapon system teams — will require that all aspects of organization design be addressed. To date, discussions related to LCMCs have primarily addressed organization design issues — more specifically, issues concerning LCMC structure. By organization design, we mean more than just the structure or the organization's manning chart and how they are interconnected. Structure must include determining what tasks need to

be performed to fulfill the strategy, how the work is assigned, how the work will be rewarded and how decisions will be made, just to name a few.

From an organization design standpoint, there are clear and observable differences between what life-cycle management looked like before and what it will look like after full LCMC initiative implementation, as depicted in Table 1.

Changing Design and Structure Requires Changing Culture

Successful transition to an LCMC will also require addressing cultural issues. Culture is basically comprised of behavioral norms — the behaviors that all employees understand are expected of them if they are to “fit in” and “survive” within their organization. Behavioral norms guide the way employees approach their work and how they interact with others. These norms are shaped by the organization's commonly shared assumptions, beliefs and values of the organization.

Culture can either facilitate or

inhibit the success of organizational initiatives like LCMCs. It is often the cultural issues and differences that create the greatest resistance to change. Once the strategy and structure are in place, then current culture should be assessed to determine if it is a good fit. By not ensuring proper cultural alignment — by not making the culture congruent with strategy and structure — many organizations have watched technically sound initiatives wind up as just other failed programs.

Pre-LCMC	Fully Implemented LCMC
<ul style="list-style-type: none"> Life-cycle management composed of multiple disparate processes with no single entity in charge of the entire piece. No single point of contact for the Soldier when help is needed. No single person is accountable for or controls weapons system readiness. 	<ul style="list-style-type: none"> PEO will be single point of accountability for accomplishing program objectives through integration of total life-cycle systems management.
<ul style="list-style-type: none"> Stovepiped communities and lack of unity and integration of support to the weapons system life cycle: <ul style="list-style-type: none"> Research, development and engineering are the responsibility of the U.S. Army Research, Development and Engineering Command (RDECOM). Acquisition responsibilities reside in PEOs. Sustainment resides in the Army Materiel Command (AMC) major subordinate commands (e.g., the Aviation and Missile Command (AMCOM) is the Army's sustainment manager). 	<ul style="list-style-type: none"> Environment is integrated and aligned: <ul style="list-style-type: none"> Integrate the Army's acquisition, logistics and technology (AL&T) efforts. Integrate each of the activities necessary for support of the weapons system life cycle into a team under the management of the PM. PEO has closer ties to sustainment. Closer relationship between AMC major subordinate commands and the PEOs. No or little separation between the procurement and sustainment communities.
<ul style="list-style-type: none"> Spread out — some, but not total, collocation of weapons system team. 	<ul style="list-style-type: none"> Collocation of support personnel with a single weapons system authority. Collocation of weapons system teams (PM, Acquisition Center; Integrated Materiel Management Center (IMMC); Security Assistance Management Directorate (SAMD); U.S. Army Aviation and Missile Research, Development and Engineering Center; a majority of personnel will be physically collocated with the PM.
<ul style="list-style-type: none"> Lack of synergy. 	<ul style="list-style-type: none"> Greater synergy of the AL&T communities.
<ul style="list-style-type: none"> Lack of common metrics; most metrics are historical. 	<ul style="list-style-type: none"> Common metrics; forward-looking metrics including measurement of readiness and contract performance.
<ul style="list-style-type: none"> Less than optimal coordination and optimization resulting from the separation between weapons system acquisition and sustainment. 	<ul style="list-style-type: none"> Holistic approach to managing systems. Supports integrated weapon system teams.
<ul style="list-style-type: none"> Program managers (PMs) do not have funding, personnel and other resources necessary to carry out sustainment functions. 	<ul style="list-style-type: none"> PM manages all functions from research and development to sustainment and demilitarization. Life-cycle authority and responsibility is delegated down to a single individual. SFLCMCs will be in all project offices.

Table 1. Comparison of Pre-LCMC and Fully Implemented LCMC



Soldiers from 1st Battalion, 62nd Air Defense Artillery Regiment, 25th Infantry Division, fire a Stinger missile from their Avenger weapons system. (U.S. Army photo by PFC Cheryl Ransford.)

getting products to Soldiers faster, improving system availability and readiness, and maximizing the go-to-war capability of weapon systems. When all these pieces are addressed, the result will likely be alignment and congruence. This could take the form of:

- A flexible strategy that adapts to changing demands and requirements.
- An organization structure that effectively and efficiently executes its strategy without being hindered by restrictive policies and rules.
- Systems and processes, such as human resources management and information technology, that directly support the organization's strategy.
- A culture (norms, values, beliefs, attitudes) that supports and is aligned with strategy and design or structure.
- A culture that enables the organization to achieve its desired results.

Transformation to LCMC/SFLCM

One of the implicit objectives of LCMC/Soldier-Focused Life-Cycle Management (SFLCM) is to create a high-performing organization that is able to resolve many of the coordination and optimization problems resulting from the separation of acquisition

Oftentimes, it becomes necessary to change the culture. For example, prior to the merger of PEO Tactical Missiles and PEO Air, Space and Missile Defense to create PEO Missiles and Space in January 2005, employees identified a very different culture as their desired future culture through a survey that was conducted. During 2005, PEO Missiles and Space implemented changes to create a desired future culture. The goal is to create a more "constructive culture" that is characterized by open and collaborative communication, positive and supportive interpersonal relationships, participative and person-centered management, empowered decision making, inter-unit cooperation and coordination, and support of individual and professional growth and development.

The type of culture that is best suited for the Aviation and Missile LCMC depends on the environment it will be operating in, its strategic direction, employee needs, structure of the new organization and many other factors. The decision regarding the kind of culture the Aviation and Missile

LCMC leadership wants to create is critical because it will greatly impact such important outcomes as the quality of products and services, employee satisfaction, motivation, teamwork and other organizational effectiveness criteria.

Strategy, Organization Design and Culture Lead To Improved Results

A greater degree of congruence among the five key organizational elements will result in greater effectiveness —



Soldiers from Bravo Co., 3rd Battalion, 13th Field Artillery Brigade, 42nd Division Artillery, fire an M31 Guided Multiple Launch Rocket System outside Tikrit, Iraq, June 22, 2005. (U.S. Army photo by SPC Gul Al Alisan, 55th Signal Co. (Combat Camera).)

1. Was your LCMC design driven by your customers and their requirements and demands (e.g., system availability and readiness)?
2. Will your LCMC design better enable people to work together to produce products that meet customer requirements (e.g., get products to Soldiers faster)?
3. Was your LCMC designed to maximize interdependence and synergy within and across work units (e.g., AMCOM, PEOs, RDECOM, SAMD, IMMC)?
4. Has clear direction with specific goals been provided to employees about the product requirements along with information needed to design and manage the work?
5. Was effective integration achieved with both the social (people, interpersonal dynamics, communication, etc.) and the technical (work flow, work processes, information flow, specific technologies, etc.) systems?
6. Was your organization designed to support open communication so that employees can send and receive information as needed (e.g., upward, downward and lateral communication)?
7. Do people have the opportunity to be cross-trained in a variety of skills? (This makes the organization more adaptable and able to reconfigure itself.)
8. Are people empowered to determine how they will do the work and manage their relationships with others?

Table 2. Questions to Guide LCMC Design

and sustainment. Conceptually, the process of creating the LCMC is fluid and dynamic. It has been, and will continue to be, a learning process. Learning comes through asking questions. Table 2 poses some questions intended to stimulate discussion among the LCMC architects and builders. How these questions are answered will give an indication of whether or not the LCMC is on the right track to become a high-performing organization and capable of achieving congruence among the important design elements.

Change Capability and Congruence

An essential key to the LCMC's success is its adaptability and responsiveness to constant, rapid change — in other words, change capability. It has developed the capacity to reinvent, renew and reshape itself as external and internal environments, customer requirements and technologies change. To achieve congruence there must be an ability and a willingness to change. Sometimes the change will be a:

- Shift in culture and behavioral norms.
- Shift in organization design elements.
- Strategic change.

- Combination of all three.

Congruence among strategy, structure and culture requires a holistic approach to managing systems. One must be able to see the interconnect-edness and the interdependencies — not just look at the organization elements as independent elements, each in its own silo.

Recommendations for Path Forward

As the architects and builders are putting the LCMC together, the following design principles are offered as a guide or blueprint:

- Begin with customers and their requirements. The LCMC's goal is to better enable people to work together and efficiently produce and deliver products that meet customer requirements. So start by analyzing customer requirements and environmental demands and the organization's current ability to meet those demands and requirements.
- Develop and communicate clear vision, mission, direction and goals, with well-defined product requirements and measures of performance.

- Analyze and then integrate the technical systems — work flow, technologies and work processes — with the social systems — people, human resources systems, communication, leadership and norms.
- Ensure that everyone has access to the information they need to do their jobs effectively.
- Create an empowering culture and management structure where employees have the authority to make decisions that impact their work.
- Design into the organization the ability to anticipate and respond to constantly and rapidly changing environmental demands.

LCMC design and construction should focus on the congruence of all design elements, culture and strategy. We believe that this can only be accomplished by bringing together people, work, technology and information in a way that optimizes their fit. The organization then becomes a high-performing work system.

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